

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:  
a main body of the image forming apparatus;  
a wireless LAN module that is provided inside  
5 a rear surface of the main body of the image forming  
apparatus;  
an antenna that is provided on the rear surface of  
the main body of the image forming apparatus; and  
a cable that connects the wireless LAN module and  
10 the antenna with a shortest distance.

2. The image forming apparatus according to  
claim 1, wherein the wireless LAN module is provided on  
a control board that is disposed inside the rear  
surface of the main body of the image forming  
15 apparatus.

3. The image forming apparatus according to  
claim 1, wherein the antenna comprises a main antenna and a sub-antenna.

4. The image forming apparatus according to  
20 claim 1, wherein the antenna comprises a dual-band  
antenna.

5. An image forming apparatus with an automatic  
document feeder, comprising:

a wireless LAN module that is provided inside  
25 a rear surface of a main body of the image forming  
apparatus; and  
an uppermost part of an antenna that is connected

to the wireless LAN module and is provided on the rear surface of the main body of the image forming apparatus, the uppermost part of the antenna being located at a position higher than a predetermined 5 position relative to an uppermost part of the automatic document feeder.

6. The image forming apparatus according to claim 5, wherein the uppermost part of the antenna is located at a position higher than a position that is 10 lower by 1 cm than the uppermost part of the automatic document feeder.

7. An image forming apparatus with an automatic document feeder, comprising:

15 a wireless LAN module that is provided inside a rear surface of a main body of the image forming apparatus;

16 a main antenna that is connected to the wireless LAN module and is provided on the rear surface of the main body of the image forming apparatus, the main 20 antenna being located at a position where optimal radiation characteristics are obtained in consideration of the presence of the automatic document feeder that is an obstacle to a front side of the image forming apparatus; and

25 a sub-antenna that is connected to the wireless LAN module and is provided on the rear surface of the main body of the image forming apparatus.

8. The image forming apparatus according to  
claim 7, wherein an uppermost part of the main antenna  
is provided on that part of the rear surface of the  
image forming apparatus, which corresponds to a right  
5 side of the front surface of the image forming  
apparatus, at a position that is lower by 1 cm than  
an uppermost part of the automatic document feeder.

9. The image forming apparatus according to  
claim 7, wherein the sub-antenna is provided at such  
10 a position as to compensate a degraded portion of  
radiation characteristics of the main antenna.

10. The image forming apparatus according to  
claim 7, wherein an uppermost part of the sub-antenna  
is provided on that part of the rear surface of the  
15 image forming apparatus, which corresponds to a left  
side of the front surface of the image forming  
apparatus, at a position that is lower by 1 cm than  
an uppermost part of the automatic document feeder.

11. The image forming apparatus according to  
20 claim 7, further comprising an antenna for Bluetooth,  
which is disposed between the main antenna and the  
sub-antenna, with a predetermined distance from the  
main antenna and a predetermined distance from the  
sub-antenna.

25 12. The image forming apparatus according to  
claim 11, wherein the antenna for Bluetooth is disposed  
with a distance of 200 mm or more from the main antenna

and with a distance of 200 mm or more from the sub-antenna.